WO 03/089803

## The Claims Defining the Invention are as Follows:

1. A fluid cooled brake housing including at least:

a casing defining a cavity for housing one or more friction pads, said casing having one or more walls, at least one of said walls provided with an internal fluid flow path, a fluid inlet in fluid communication with said fluid flow path, and a fluid outlet in fluid communication with said fluid flow path;

whereby, when a fluid supply is coupled with said fluid inlet, fluid flows through said wall via said fluid inlet, fluid flow path and fluid outlet, thereby cooling said housing.

- 2. The housing according to claim 1, wherein said fluid flow path includes at least one channel between said fluid inlet and said fluid outlet.
- 3. The housing according to claim 1, wherein said fluid flow path includes a plurality of parallel connected channels extending between said fluid inlet and said fluid outlet.
- 4. The housing according to any one of claims 1-3 further including sealing means for sealing said cavity when said housing is mounted on an axle to provide a wet brake housing.
- 5. A wall for a brake housing, said wall including an internal fluid flow path, a fluid inlet in fluid communication with said fluid flow path, and a fluid outlet in fluid communication with said fluid flow path;

whereby, when a fluid supply is coupled with said fluid inlet, fluid flows through said wall via said inlet, through said fluid flow path and out said fluid outlet to cool said wall.

WO 03/089803 PCT/AU03/00443

- 6. The wall according to claim 5, wherein said fluid flow path includes at leat one channel between said fluid inlet and said fluid outlet.
- 7. The wall according to claim 5, wherein said fluid flow path includes a plurality of parallel connected channels extending between said fluid inlet and said fluid outlet.
- 8. A fluid cooled brake system including:

a fluid cool brake housing having a casing defining a cavity, said casing having one or more walls, at least one of said walls provided with an internal fluid flow path, and a fluid inlet and a fluid outlet each in fluid communication with said fluid flow path;

one or more brake pads disposed in said cavity;

braking surface located within said cavity;

an actuator for selectively moving said one or more brake ads into contact with said braking surface; and,

a supply of cooling fluid external of said cavity and in fluid communication with said fluid inlet and said fluid outlet, whereby said cooling fluid circulates through said supply, said fluid inlet, fluid flow path and fluid outlet.

- 9. The brake system according to claim 8 further including a pump for pumping said cooling fluid through said supply and said fluid flow path.
- 10. The brake system according to claim 9 further including a heat exchanger in fluid communication with said supply for cooling said cooling fluid.
- 11. The brake system according to any one of claims 8-10 further including a

WO 03/089803 PCT/AU03/00443

- 11 -

volume of fluid sealed with in said cavity and at least partially covering said braking surface, said fluid separate from said cooling fluid.

- 12. The brake system according to any one of claims 8-11 wherein said fluid flow path includes at least one channel between said fluid inlet and said fluid outlet.
- 13. The brake system according to nay one of claims 8-11 wherein said fluid flow path includes a plurality of parallel connected channels extending between said fluid inlet and said fluid outlet.
- 14. The brake system according to any one of claims 8-13 further including sealing means for sealing said cavity when said housing is mounted on an axle to provide a wet brake housing.